

PM₁₀ Air Quality Data Update 2004-2006 Estimated Exceedance Counts

The following is a brief summary of EPA's air quality update for PM₁₀ based on ambient monitoring data for the three-year period, 2004-2006. During this three-year period:

- 12 the original 87* areas designated nonattainment for the PM₁₀ failed to meet the (24-hour) PM₁₀ NAAQS in 2004-2006 (Table 1).
- 28 additional areas (counties) also failed to meet the (24-hour) PM₁₀ NAAQS in 2004-2006 (Table 2).

* Previously, the count of original, designated nonattainment areas was listed as 86. In March 2007, the Hayden/Miami PM₁₀ nonattainment area was split into two separate PM₁₀ nonattainment areas (Hayden and Miami).

Two primary PM₁₀ standards were established by EPA in 1987 for the protection of public health. The 1987 PM₁₀ NAAQS consisted of both a short-term (24-hour) standard and a long-term (annual) standard. EPA set the 24-hour PM₁₀ standard at 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and the annual PM₁₀ standard at 50 $\mu\text{g}/\text{m}^3$. In September 2006, EPA completed a review of the particle pollution NAAQS. In the final rule, EPA retained the 24-hour PM₁₀ standard but revoked the annual PM₁₀ standard. The revision became effective December 18, 2006. Compliance with the 24-hour standard is judged on the basis of the most recent three years of ambient air quality monitoring data. The 24-hour PM₁₀ standard is not met at a monitoring site if the average number of estimated exceedances of the level of the standard is greater than 1.0 (1.05 rounds up).

Air quality data from EPA's Air Quality System (AQS) were used to calculate PM₁₀ estimated exceedances. The specific calculations are explained in footnotes to the tables below. The data used for these calculations were obtained from AQS on July 11, 2007. To date, no regulatory decisions on attainment status have been made for any area based on these specific calculations. For information concerning these data and/or calculations, contact:

Mark Schmidt
U.S. Environmental Protection Agency
Air Quality Trends and Analysis Group (C304-01)
Research Triangle Park, NC 27711
(919) 541-2416, (919) 541-3613 (FAX)
Schmidt.mark@epa.gov

Table 1. Areas previously designated nonattainment for the PM₁₀ NAAQS, 2004-2006.

<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Status</u>	<u>Classification</u>	<u>2004-2006</u>	<u>Met NAAQS 2004-</u>	<u>Comment</u>
					<u>Expected</u>	<u>2006?</u>	
					<u>Number of</u>		
					<u>Exceedances</u> ¹		
Ajo	AZ	9	Nonattainment	Moderate	0	yes	
Anthony	NM	6	Nonattainment	Moderate	5.2	no	
Aspen	CO	8	Maintenance	Moderate	0	yes	
Boise	ID	10	Maintenance	Moderate	0	yes	
Bullhead City	AZ	9	Maintenance	Moderate	0	yes	
Butte	MT	8	Nonattainment	Moderate	0	yes	
Canon City	CO	8	Maintenance	Moderate	0	incomplete	
Clairton	PA	3	Maintenance	Moderate	0.7	yes	
Coachella Valley	CA	9	Nonattainment	Serious	2.2	no	
Columbia Falls	MT	8	Nonattainment	Moderate	0	yes	
Coso Junction	CA	9	Nonattainment	Moderate	1.0	incomplete	Test EE = 0.3
Cuyahoga County	OH	5	Maintenance	Moderate	0	yes	
Denver	CO	8	Maintenance	Moderate	0	yes	
Detroit	MI	5	Maintenance	Moderate	0.7	yes	
Douglas/Paul Spur	AZ	9	Nonattainment	Moderate	0	yes	
Eagle River	AK	10	Nonattainment	Moderate	0	yes	
El Paso	TX	6	Nonattainment	Moderate	9	no	
Eugene/Springfield	OR	10	Nonattainment	Moderate	0	yes	
Follansbee	WV	3	Maintenance	Moderate	0	yes	
Fort Hall	ID	10	Nonattainment	Moderate	1.1	no	
Granite City	IL	5	Maintenance	Moderate	0	yes	
Grants Pass	OR	10	Maintenance	Moderate	0	yes	
Guaynabo	PR	2	Nonattainment	Moderate	0	yes	
Hayden ³	AZ	9	Nonattainment	Moderate	0	yes	
Imperial Valley	CA	9	Nonattainment	Moderate	11.9	no	
Indian Wells Valley	CA	9	Maintenance	Moderate	0	incomplete	
Juneau	AK	10	Nonattainment	Moderate	0	yes	
Kalispell	MT	8	Nonattainment	Moderate	0	yes	
Kent	WA	10	Maintenance	Moderate	0	incomplete	
Klamath Falls	OR	10	Maintenance	Moderate	0	yes	
La Grande	OR	10	Maintenance	Moderate	0	incomplete	
Lake County	IN	5	Maintenance	Moderate	1.7	no	
Lakeview	OR	10	Maintenance	Moderate	0	yes	
Lamar	CO	8	Maintenance	Moderate	0	yes	
Lame Deer	MT	8	Nonattainment	Moderate	0	incomplete	
Las Vegas	NV	9	Nonattainment	Serious	0.4	yes	
Libby	MT	8	Nonattainment	Moderate	0	yes	
Lyons Township	IL	5	Maintenance	Moderate	0	yes	
Mammoth Lakes	CA	9	Nonattainment	Moderate	0	yes	
Medford	OR	10	Maintenance	Moderate	0	yes	
Miami ³	AZ	9	Nonattainment	Moderate	0	yes	
Mingo Junction	OH	5	Maintenance	Moderate	0	yes	
Missoula	MT	8	Nonattainment	Moderate	0	incomplete	
Mono Basin	CA	9	Nonattainment	Moderate	22.2	no	
New Haven	CT	1	Maintenance	Moderate	0	incomplete	
New York	NY	2	Nonattainment	Moderate	ND	incomplete	
Nogales	AZ	9	Nonattainment	Moderate	12.9	no	
Oakridge	OR	10	Nonattainment	Moderate	0	yes	
Ogden	UT	8	Nonattainment	Moderate	0	yes	
Oglesby	IL	5	Maintenance	Moderate	0	yes	
Olympia	WA	10	Maintenance	Moderate	0	incomplete	
Owens Valley	CA	9	Nonattainment	Serious	18.8	no	
Pagosa Springs	CO	8	Maintenance	Moderate	0	incomplete	
Payson	AZ	9	Maintenance	Moderate	0	incomplete	
Phoenix	AZ	9	Nonattainment	Serious	15.9	no	Test EE = 10.1
Pinehurst	ID	10	Nonattainment	Moderate	0	yes	
Polson	MT	8	Nonattainment	Moderate	0	incomplete	
Portneuf Valley	ID	10	Maintenance	Moderate	0	yes	
Presque Isle	ME	1	Maintenance	Moderate	0	yes	
Rillito	AZ	9	Nonattainment	Moderate	0	yes	
Rochester	MN	5	Maintenance	Moderate	ND	incomplete	
Ronan	MT	8	Nonattainment	Moderate	0	incomplete	
Sacramento County	CA	9	Nonattainment	Moderate	0.3	yes	
Saint Paul	MN	5	Maintenance	Moderate	0	yes	
Salt Lake County	UT	8	Nonattainment	Moderate	1.1	no	
San Bernardino	CA	9	Nonattainment	Moderate	1.0	yes	
San Joaquin Valley	CA	9	Nonattainment	Serious	(4)	(4)	
Sandpoint(Bonner County)	ID	10	Nonattainment	Moderate	0	yes	

Table 1. Areas previously designated nonattainment for the PM₁₀ NAAQS, 2004-2006.

<u>Designated Area</u>	<u>State</u>	<u>EPA Region</u>	<u>Status</u>	<u>Classification</u>	<u>2004-2006</u>	<u>Met NAAQS 2004-</u>	<u>Comment</u>
					<u>Expected</u>	<u>2006?</u>	
					<u>Exceedances</u> ¹		
Seattle	WA	10	Maintenance	Moderate	<u>0</u>	incomplete	
Sheridan	WY	8	Nonattainment	Moderate	<u>0</u>	incomplete	
Shoshone County	ID	10	Nonattainment	Moderate	0	yes	
South Coast Air Basin	CA	9	Nonattainment	Moderate	0	no	
Southeast Chicago	IL	5	Maintenance	Moderate	0	yes	
Spokane	WA	10	Maintenance	Moderate	0	yes	
Steamboat Springs	CO	8	Maintenance	Moderate	0	yes	
Tacoma	WA	10	Maintenance	Moderate	<u>0</u>	incomplete	
Telluride	CO	8	Maintenance	Moderate	0	yes	
Thompson Falls	MT	8	Nonattainment	Moderate	0	yes	
Trona	CA	9	Nonattainment	Moderate	0.7	yes	
Utah County	UT	8	Nonattainment	Moderate	0.3	yes	
Vermillion	IN	5	Maintenance	Moderate	<u>ND</u>	incomplete	
Wallula	WA	10	Maintenance	Serious	<u>0</u>	incomplete	
Washoe County (Reno)	NV	9	Nonattainment	Moderate	0.3	yes	multiple monit
Weirton	WV	3	Maintenance	Moderate	0	yes	
Whitefish	MT	8	Nonattainment	Moderate	0.3	yes	
Yakima	WA	10	Maintenance	Moderate	0	yes	
Yuma	AZ	9	Nonattainment	Moderate	0	yes	

Notes:

- Underlined values are based on incomplete data and are generally not valid for regulatory usage. Either there are no other sites in the area with complete data for this three-year period or a complete site(s) is located in the area but has an expected estimated exceedance value of zero and an incomplete site in the area registered the non-zero value shown.

1. The updated design values are computed for the 2004-2006 period using federal reference or equivalent PM10 data reported by the Tribes and the State and local governments to EPA's Air Quality System (AQS) as of July 10, 2007. Concentrations flagged by States and Tribes as exceptional events (e.g. high winds, wildfires, volcanic eruptions, construction) and concurred by the EPA Regional Office are not included in the calculation of these design values. The computation procedures for calculating estimated expected exceedances follow 40 CFR Part 50, Appendix K.. No regulatory decisions on attainment status have been made for areas based upon this data. In some cases the data are still under review.

2. On August 6, 2002, EPA finalized certain actions affecting the Searles Valley, California, PM₁₀ nonattainment area, which is located in the rural high desert and includes portions of Inyo, Kern, and San Bernardino Counties. The action splits the Searles Valley nonattainment area into three separate areas: Coso Junction, Indian Wells Valley and Trona. EPA's action also determines that the Trona area attained the PM₁₀ standards by December 31, 1994. On May 7, 2003, EPA finalized approval of the Indian Wells Moderate Area and Maintenance Plan and redesignated the area from nonattainment to attainment for particulate matter (PM₁₀). Source: <http://www.epa.gov/region9/air/searlespm/index.html>

3. On March 28, 2007 EPA approved the redesignation of the Hayden/Miami PM₁₀ nonattainment area into two separate PM₁₀ nonattainment areas: Hayden and Miami. EPA also determined that the Miami PM₁₀ nonattainment area attained the PM₁₀ national ambient air quality standard, Source: <http://www.epa.gov/oar/oaqps/greenbk/7214422.html>

4. The EPA Regional Administrator on August 15, 2007 signed a Federal Register proposal to concur that certain exceedances in 2006 were due to eligible exceptional events. If EPA's final action is to concur, San Joaquin would have 1.0 or fewer expected exceedances based on 2004-2006 data, and EPA would affirm its October 2006 determination of attainment. An entry will be made will be added for this area when a final determination is made.

- Some valid (not underlined) values are based on sites that did not meet the minimum 75 percent data capture requirements per quarter (for all 12 quarters). These values are considered valid for regulatory usage per 40 CFR Part 50 Appendix K 2.3(c) or the *Guideline on Exceptions to Data Requirements for Determining Attainment of Particulate Matter Standards*. An incomplete, potentially violating expected number of exceedances is valid if zeros are assumed for the unmonitored periods and the 3-year metric still exceeds 1.0. Incomplete, potentially 'meeting' values for expected number of exceedances are valid if same-site maximum quarterly values (for the 3-year period) are substituted for missing data and the recalculated 3-year metric still meet the NAAQS. See substitution requirements and computation detail in stated references.

ND = No Data

Table 2. Additional areas failing to meet the PM₁₀ NAAQS in 2004-2006.

<u>County</u>	<u>State</u>	<u>EPA Region</u>	<u>2004-2006</u>		<u>Site</u>	<u>CBSA</u>	<u>Comment</u>
			<u>Expected</u>	<u>Number of Exceedances</u>			
Alamosa	CO	8		1.4	080030003		
Aroostook	ME	1		1.1	230030013		
Bernalillo	NM	6		2.3	350010026	Albuquerque, NM	
Big Horn	MT	8		2.1	300030017		
Dona Ana ³	NM	6		5.4	350130017	Las Cruces, NM	
El Paso	TX	6		12.5	481410044	El Paso, TX	Test EE = 8.3
Georgetown	SC	4		1.2	450430006	Georgetown, SC	
Harris	TX	6		3.1	482011035	Houston-Sugar L.	
Jefferson	AL	4		2.5	010736003	Birmingham-Hoo	Test EE = 1.7
Kings	CA	9		28.2	060310500	Hanford-Corcora	Test EE = 9.4
Lincoln	WY	8		2.1	560230800		
Maricopa ³	AZ	9		2.5	040134011	Phoenix-Mesa-Sc	Test EE = 1.7
Matanuska-Susitna ²	AK	10		4.4 ²	021700008	Anchorage, AK	
Mesa	CO	8		2.0	080770017	Grand Junction, C	Test EE = 1.3
Nye	NV	9		5.2	320230010	Pahrump, NV	Test EE = 1.7
Philadelphia	PA	3		98.7	421010649	Philadelphia-Car	Test EE = 32.9
Pinal ³	AZ	9		278.2	040213013	Phoenix-Mesa-Sc	Test EE = 92.7
Porter	IN	5		1.4	181270023	Chicago-Naperville	
San Diego	CA	9		3.1	060732007	San Diego-Carlsb	
Sandoval	NM	6		4.6	350439004	Albuquerque, NM	
Scioto	OH	5		1.9	391450021	Portsmouth, OH	
St. Croix	VI	2		2.5	780100012		
St. Louis (City)	MO	7		14.1	295100092	St. Louis, MO-IL	
St. Thomas	VI	2		7.6	780300007		
Sweetwater	WY	8		3.9	560370868	Rock Springs, WY	
Tulsa	OK	6		2.2	401430110	Tulsa, OK	
Webb	TX	6		1.4	484790016	Laredo, TX	
Yolo	CA	9		2.0	061131003	Sacramento--Ard	

Notes:

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2. Exceedances in this county have been flagged as exceptional events. The EPA Regional Office is in the process of reviewing associated documentation.
3. These counties are near or, in some cases, overlap or totally contain previously designated PM₁₀ nonattainment areas. However, the monitoring sites from which these design values are derived are located outside the boundaries of the nonattainment area. Therefore, these counties are listed here as "additional areas".